

# DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS D350-561 REV. C

REF. CANADIAN STC: SH91-20 ISSUE 2

REF. FAA STC: SH856NE

To reduce vibration, Dart has developed the D350-561-141/-143 Mirror Installations to replace the D350-561-041/-043 Mirror Installations. For customers with D350-561-041/-043 Mirror Installations at CHG 005 or earlier who would like to upgrade their installation, the DSI 9379-011 Upgrade Kit can be obtained from Dart. The components for DSI 9379-011 Kit are as defined in Section 1.0 below.

Customers upgrading their installation from D350-561-041/-043 to D350-561-141/-143 should follow instructions given in Figures 1 through 5 of DSI 9379 and refer to Installation Instructions D350-561 Rev. C as applicable.

Customers who are installing a D350-561-141/-143, should refer to Figures 2 through 5 of DSI 9379 and refer to Installation Instructions D350-561 Rev. C as applicable.

This service instruction details the D350-561-141/-143 kits at CHANGE 003 or later, which use D4070-041 Clamps (replaces MS21919WDG7 clamps). For -141/-143 kits at earlier change numbers, the DSI-9379-013 Upgrade kit is available to replace the mil-spec clamps with more robust D4070-041 Clamps.

## 1.0 PARTS LIST

Qty -141	Qty -143	Qty -045	Qty -011	Qty -013	Part Number	Description
X	1				D350-561-141	SINGLE MIRROR INSTALLATION (REPLACES -041)
	X				D350-561-143	DUAL MIRROR INSTALLATION (REPLACES -043)
	1	X			D350-561-045	MIRROR KIT
			X		DSI-9379-011	UPGRADE KIT
				X	DSI-9379-013	UPGRADE KIT
1		1			D2011-101	MIRROR
1					D2012-105	ARM
1					D2012-107	CLEVIS
1					D2012-111	BRACKET
		2			D2012-113	CLAMP
1					D2012-115	BRACKET
2					D2022-101	SPACER
1*		1*			D3014-1	LOCKNUT
1			1		D3629-1	BRACKET
1			1		D3635-1	GASKET
2			2		D3635-3	GASKET
1			1		D3646-1	ARM
1			1		D3646-3	ARM
2			2	2	D4070-041	CLAMP
3			3		AN3-4A	BOLT
1					AN3-6A	BOLT
3			2	2	AN4-5A	BOLT
1					AN4-10A	BOLT
8			6		AN960JD10	WASHER
8			4	4	AN960JD416	WASHER
1*		1*			AN960JD416L	WASHER
4			3		MS21042L3	NUT (OR MS21042-3)
4			2	2	MS21042L4	NUT (OR MS21042-4)

\*INCLUDED AS PART OF D2011-101 MIRROR

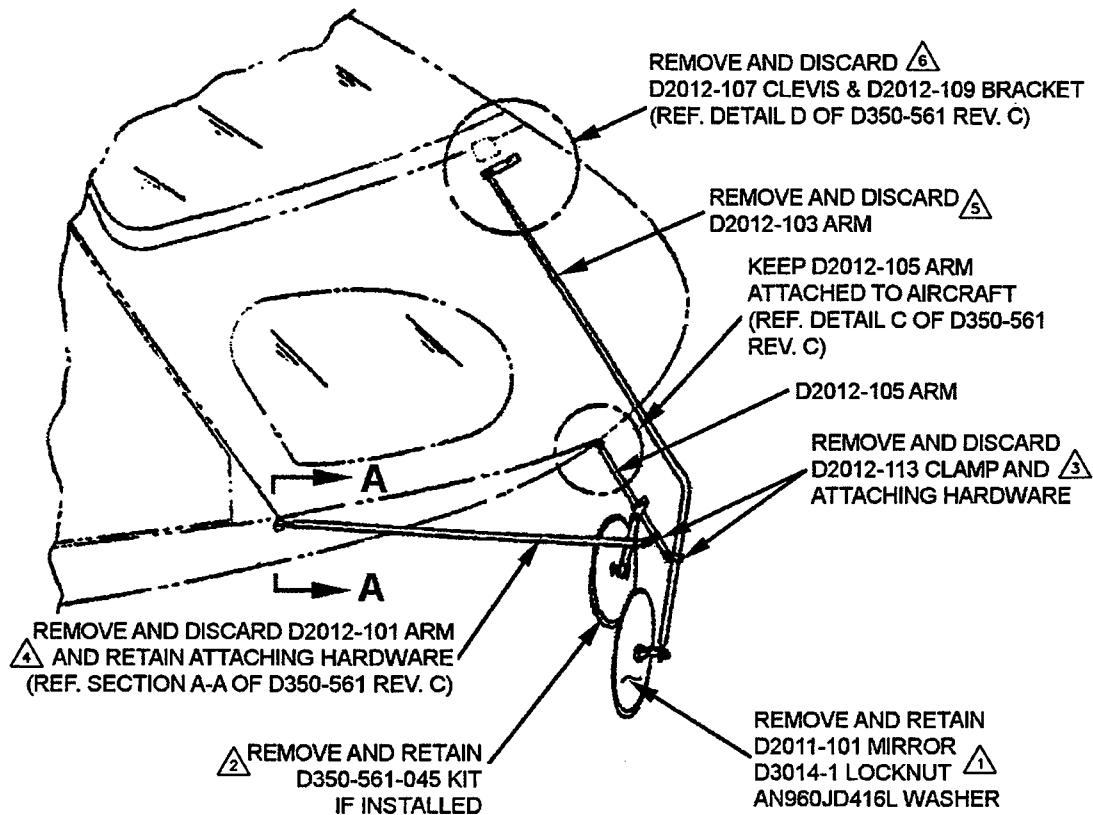
CANADA  
DEPARTMENT OF TRANSPORT  
AIRCRAFT CERTIFICATION  
BRANCH  
DAO # 01-O-01

APPROVED

BY: *D. Shepherd*  
D. SHEPHERD (DE # 02)

DATE: 10.02.12  
CERT. NO.: SH91-20  
ISSUE NO.: 2

C	D4070-041 WAS MS21919WDG7	CP	10.02.12
B	MS21919WDG7 WAS MS21929WDG7	DC	07.11.26
A	NEW ISSUE	MB	07.07.10
REV.	DESCRIPTION	BY	DATE
DESIGN	<i>JB</i>	<b>DART AEROSPACE LTD</b>	
DRAWN	<i>JP</i>	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>N/A</i>	DRAWING NO.	REV. C
MFG. APPR.	<i>N/A</i>	DSI 9379	SHEET 1 OF 5
APPROVED	<i>JB</i>	TITLE	SCALE
DE APPR.	<i>JB</i>	CARGO MIRROR UPDRAGE KIT	NTS
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**FIGURE 1: REMOVAL OF D350-561-041/-043  
FOR CONVERSION TO D350-141/-143**

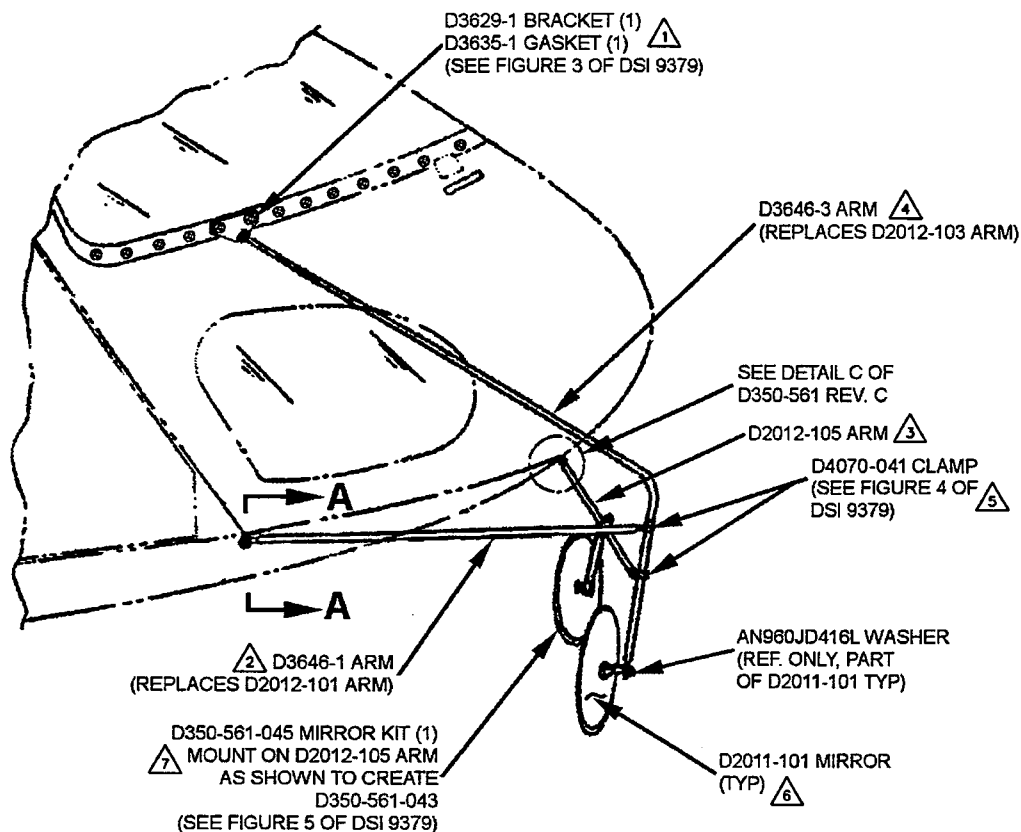
**2.0 REMOVAL (IF CONVERTING FROM -041/-043 TO -141/-143 USING  
DSI 9379-011)**

- 1) REMOVE AND RETAIN D2011-101 MIRROR AND ATTACHING FASTENERS.
- 2) REMOVE AND RETAIN D350-561-045 KIT.
- 3) REMOVE AND DISCARD D2012-113 CLAMPS AND ATTACHING HARDWARE (2 PLACES).
- 4) REMOVE AND DISCARD D2012-101 ARM. LEAVE D2012-115 BRACKET AND HARDWARE ATTACHED TO THE AIRCRAFT.
- 5) REMOVE AND DISCARD D2012-103 ARM.
- 6) REMOVE AND DISCARD D2012-107 CLEVIS. AT THE INSTALLER'S DISCRETION, THE D2012-109 BRACKET CAN BE REMOVED OR CAN REMAIN INSTALLED. WHETHER OR NOT THE D2012-109 BRACKET IS BEING REMOVED, ENSURE BOTH SCREWS ARE RE-INSTALLED.

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MFG. APPR.	N/A	DSI 9379	SHEET 2 OF 5
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**FIGURE 2: D350-561-141/-143 INSTALLATIONS**

### 3.0 INSTALLATION

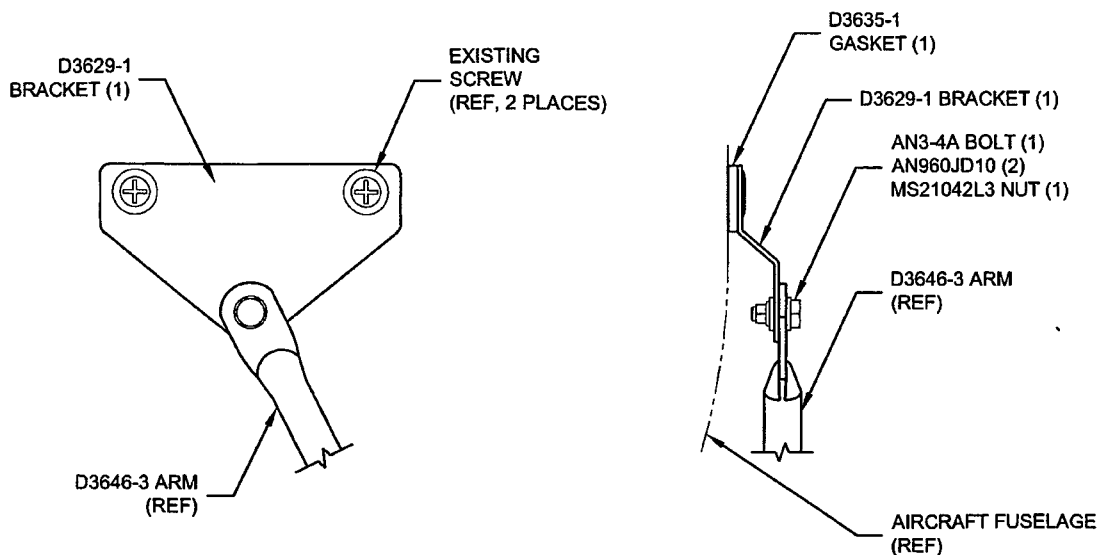
- 1) INSTALL D3629-1 BRACKET AND D3635-1 GASKET USING EXISTING SCREWS ON WINDOW. IT IS ACCEPTABLE TO SUBSTITUTE SCREWS WITH LONGER SCREWS OF SAME TYPE.
- 2) INSTALL D3646-1 ARM PER SECTION A-A OF D350-561 REV. C.  
**NOTE:** D3646-1 REPLACES D2012-101.
- 3) INSTALL D2012-105 ARM PER DETAIL C OF D350-561 REV. C.
- 4) INSTALL D3646-3 ARM. **NOTE:** D3646-3 REPLACES D2012-103.
- 5) ATTACH D3646-1 ARM AND D2012-105 ARM TO D3646-3 ARM USING D4070-041 CLAMPS.
- 6) MOUNT D2011-101 MIRROR ONTO D2012-103 ARM.
- 7) IF INSTALLING THE D350-561-143 KIT, INSTALL D350-561-045 MIRROR KIT PER FIGURE 5 OF DSI 9379.

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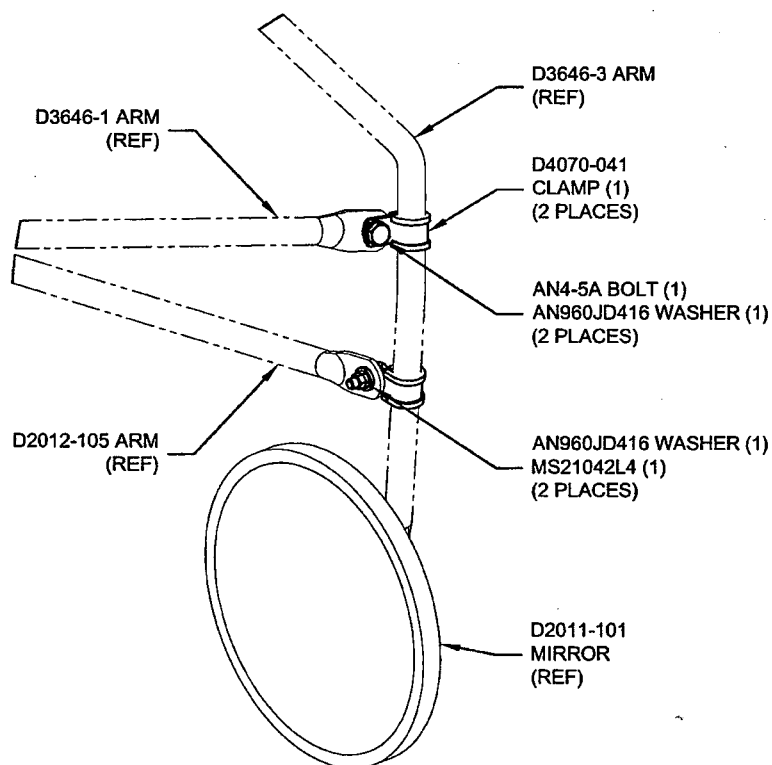
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**FIGURE 3: D3629-1 BRACKET/D3646-3 ARM INSTALLATION**



**FIGURE 4: D4070-041 CLAMP INSTALLATION**

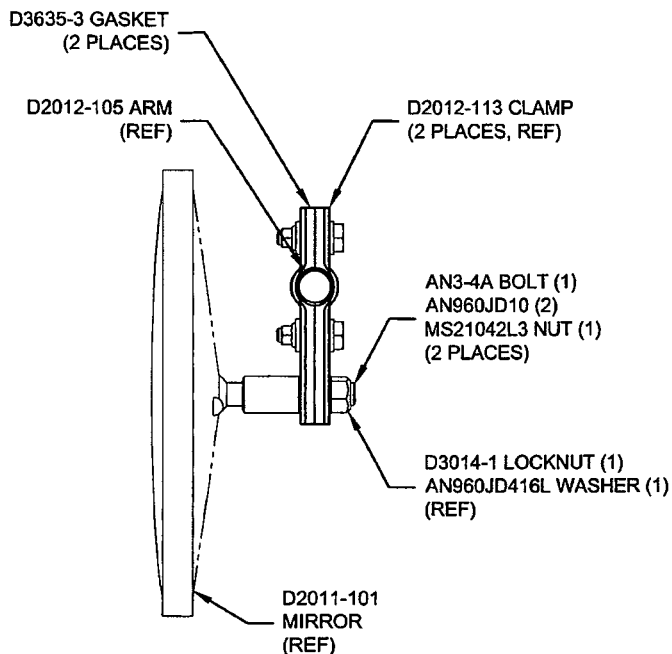
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**FIGURE 5: D350-561-045 INSTALLATION**

#### 4.0 WEIGHT AND BALANCE

The following is the weight and balance information for the *D350-561-141 Single Mirror Kit* and the *D350-561-143 Dual Mirror Kit*.







Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
<b>D350-561-141</b>	2.5 lb	+36.1 in	+90.3 in-lb	9.0 in	22.5 in-lb
<b>Single Mirror Installation</b>	1.1 kg	+0.92 m	+1.0 m-k-g	0.23 m	0.25 m-k-g
<b>D350-561-143</b>	3.2 lb	+36.1 in	+115.5 in-lb	8.8 in	28.2 in-lb
<b>Dual Mirror Installation</b>	1.5 kg	+0.92 m	+1.4 m-k-g	0.22 m	0.33 m-k-g

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